

WHAT IS CLAIMED IS:

1 1. An angle adjusting device for a chair having a seat and a backrest pivotal
2 relative to the seat, the angle adjusting device comprising:

3 a fixed plate adapted for engagement with the seat and having two pivot holes
4 respectively defined in two opposite side faces in a rear portion thereof, two arcuate
5 slots respectively defined in the two opposite side faces thereof and two mounting holes
6 respectively defined in the two opposite side faces in a front portion thereof;

7 a pivotal plate adapted for engagement with the backrest and being pivotable
8 relative to the fixed plate, the pivotal plate having two legs extending downward and
9 each leg having a first hole in alignment with a respective one of the pivot holes and a
10 second hole in alignment with a respective one of the arcuate slots such that after a first
11 pin is inserted into the aligned first hole and the pivot holes and a second pin is inserted
12 into the aligned second hole and the arcuate slots, the pivotal plate is able to pivot
13 relative to the fixed plate;

14 a cylinder having a third hole defined in a first distal end of the cylinder and
15 being in alignment with the arcuate slots so that the second pin is able to extend through
16 the third hole to secure engagement of the cylinder with the fixed plate, a shaft received
17 in and extending out of the cylinder and having an actuating pin extending out from a
18 free end of the shaft;

19 a mounting frame securely received in the fixed plate and having an extension
20 hole to allow the shaft of the cylinder to extend therethrough thereby position of the
21 cylinder in the fixed plate is fixed;

22 a control rod extending through the opposite side faces of the fixed plate and
23 being pivotal relative to the fixed plate; and

1 a control plate driven by the control rod to be movable relative to the fixed plate
2 and having an extension in engagement with the actuating pin of the cylinder,
3 whereby pivotal movement of the control rod drives the control plate to move to
4 initiate movement of the actuating pin of the cylinder so that pressure inside the cylinder
5 changes to allow the legs of the pivotal plate to move along the arcuate slot, which
6 allows the pivotal plate to change its angle relative to the fixed plate.

7 2. The angle adjusting device as claimed in claim 1, wherein the control rod has
8 an axial hole and the control plate has a fourth hole in alignment with the axial hole so
9 that after a securing element is inserted into the aligned axial hole and the fourth hole,
10 the control rod and the control plate are securely combined and that the pivotal
11 movement of the control rod is able to drive the control plate to move.

12 3. The angle adjusting device as claimed in claim 2, wherein the control plate
13 has at least one long hole defined through a face thereof to allow a bolt to extend through
14 the long hole and into a bottom face of the fixed plate to secure the control plate with
15 respect to the fixed plate.